

## ORIENTATION BOOKLET

For nursing students on clinical placement in the

# ***Emergency Department***

who are undertaking one of the following programmes:

Bachelor of Science (Nursing) Children's & General Integrated

Higher Diploma in Nursing Studies (Children's Nursing)

Student Name:

Preceptor:

We aim to provide the optimum level of emergency care, in order to ensure maximum health and social gain for all patients who suffer accidents or sudden illness. We are committed to providing an evidence-based, courteous, compassionate, safe and effective emergency service to the child and his/her parents/guardians attending the department.

Created by the staff in the ED

## **Introduction**

Welcome to the Emergency Department (ED) of CHI at Crumlin. The ED operates a 24-hour, 365-day service to deal with the emergency needs of the local population. The ED also facilitates emergency access to the specialist services offered by CHI Crumlin. The staff in the ED aim to provide the optimum level of care in order to ensure maximum health and ability for children who suffer injuries or sudden illness. Approximately 39,000 patients are treated in the ED every year.

Children experience a wide array of acute illnesses and injuries, many of them unique to the vulnerable anatomy, immature immunology and physiology, and normal exploratory behaviour of youth. Fortunately, most paediatric emergencies are minor and can readily be managed with simple first aid measures at home. Sometimes paediatric illness or injury is of high acuity or may be life threatening and as a result more sophisticated medical interventions are needed for immediate treatment.

The practice of emergency nursing is concerned with promoting and maintaining the health of children who are ill or injured at the first point of contact with the hospital setting. In promoting optimal health, well-being and independence, emergency nursing should always emphasise human values rather than disease processes and seeks to maintain the identity and the individuality of the child requiring care.

## **Emergency Department Staff**

Nursing roles within the ED are comprised of:

- Advanced Nurse Practitioner (ANP) and Advanced Nurse Practitioner Candidate (ANPc)
- Clinical Nurse Facilitator (CNF)
- Clinical Nurse Manager 2 (CNM2)
- Clinical Nurse Manager 3 (CNM3)
- Clinical Research Nurse
- Community Liaison Nurse (CLN)
- Graduate Diploma in Paediatric Emergency Nursing Course Facilitator (CNF)
- Foundation Course Facilitator (CNF)
- Shift Leaders
- Staff Nurses
- Nursing students

The medical staff consist of:

- Consultants in Emergency Medicine
- Emergency Fellowes
- Specialist Registrars in Paediatric Emergency Medicine
- Registrars
- Senior House Officers
- GP trainees

The nursing and medical staff are supported by a team of healthcare assistants (HCAs) in addition to secretarial, administrative, reception, household and janitorial staff.

## **Important Information**

Limited storage space for personal belongings is available for students in the staff changing room. Please do not leave valuables in the changing room.

## **Learning Opportunities**

The Clinical Learning opportunities (CLO's) available to you will be limited only by the length of your placement. During your time in the ED you will have the opportunity to work in all areas: minors (including the procedures and ambulatory care rooms), respiratory streaming, injury pod, majors and triage. You will learn valuable skills which you can apply to other areas of work such as: how to estimate a child's weight, working with calculations commonly used in emergency situations, learning the doses and side-effects of frequently-used medications as well as techniques for measuring, recording and interpreting vital signs and a range of physiological parameters. Irrespective of how long your placement is, you should endeavour to gain knowledge and experience in the following:

- Appropriate and accurate vital sign monitoring
- Medication management
- Handover of patients to the ward
- Communication skills (written and verbal)
- Infection prevention and control
- Maintaining a safe environment through equipment checks
- Immunisation schedule
- Pain assessment
- Monitoring and accurately recording fluid intake and output
- Collection of urine sample and urinalysis
- Blood glucose and blood ketone analysis
- Familiarisation with emergency trolley and equipment

Other learning opportunities that may arise during your placement include:

- Recording of ECGs
- Oxygen therapy, nebulisation therapy and use of metered-dose inhalers (MDIs)
- Oxygen saturation monitoring
- Observation of rashes
- Care during and after lumbar puncture
- Pre-operative check lists
- Application of bandages and slings
- Correct holding technique for the application of back slabs, venepuncture and lumbar puncture
- Management of emergency presentations such as thermal injuries, prolonged seizures, suspected meningitis and diabetic ketoacidosis (DKA)
- Use of specific emergency equipment

This learning pack has been designed to direct your learning to areas specific to emergency nursing and help you achieve the learning objectives agreed between you and your preceptor. Time for reading/reflective practice may be provided where possible to facilitate its completion. Informal teaching sessions are generally provided in the department each morning and students are expected to attend these whenever possible. If there are any specific topics you would like covered please speak with the CNF.

The learning opportunities offered by the ED are designed to integrate the many facets of patient management encountered in minor and major illness/injury. Through supervised clinical practice and appropriate academic input it is anticipated that you will develop responsibility for patient care and personal accountability but you must work within your scope of practice and under the guidance of the current 'Participation in Care guide for nursing students' The philosophy of the hospital and ED is based on family-centered care therefore you are expected to develop and adapt your communication skills to suit the needs of the family in a holistic manner. Emphasis should be placed on communication and teamwork.

The ED staff are responsible for the support, teaching and supervision of undergraduate nursing students, PRCNS children's nursing students, postgraduate emergency nursing students from both general and children's nursing backgrounds, ambulance and army personnel on the paramedic course, advanced paramedics, international nurses requiring placements prior to registration with NMBI, nurses from the UK and elsewhere doing elective placements, etc. As adult learners, you will be expected to assume responsibility for your own learning, with staff acting as facilitators to ensure the availability of a wide range of experiences.

During your placement you will be allocated a preceptor and a co-preceptor. The names of your allocated preceptors can be found in the "Student section of the Blue Folder at the Shift Leaders Desk. We have tried to match your duty to your allocated preceptor, in so far as this is possible. However, you will always be buddied by a registered staff nurse. Your assessments will be carried out by the nursing staff you have worked the most with. This is due to service provision, self-rostering by the ED workforce and skill mix. If you feel you are not achieving your learning objectives, please speak with your preceptor, Clinical Placement Coordinator (CPC) or the Clinical Nurse Facilitator (CNF) as soon as possible.

## **Hours of Placement (All Students)**

You will be advised on how many days & weeks you must attend placement for (clinical shifts and reflective practice days) by the following:

- **Supernumerary Nursing students:** Student Allocations Liaison Officer (SALO)
- **PRCNS students:** PRCNS Co-Ordinator

## **Off Duty**

- Your off duty will be decided by the CNEF /CNM2
  - Changes to your off duty may be facilitated but this is dependent on ward skill mix.
  - Duty may be swapped between students only with prior agreement of CNEF/CNM2
  - During your placement you will be allocated a preceptor and a co-preceptor. We try as much as possible to facilitate students to work alongside your allocated preceptor so that your assessments are performed by nursing staff you have been closely linked with.
- **Reflective practice:** You will be facilitated to attend your mandatory reflective practice sessions in the CCNE (Children’s Centre for Nurse Education) or online. Reading & unstructured reflective practice will be accommodated but must be undertaken within the department.

## **Absence Reporting:**

If you are absent for any reason you must follow the reporting structure below:

<b><u>Absence Reporting</u></b>	
<b>Supernumerary Nursing Students</b> (1 <sup>st</sup> ; 2 <sup>nd</sup> ; 3 <sup>rd</sup> & 4 <sup>th</sup> yrs.)	<b>Rostered Student Nurses</b> (PRCNS )
<b>1. Ring</b> the Clinical Area	<b>1. Ring</b> Nursing Admin
<b>2. Email:</b> <a href="mailto:student.absence@olhc.ie">student.absence@olhc.ie</a>	<b>2. Ring</b> the Clinical Area
	<b>3. Email:</b> PRCNS Co-Ordinator (PRCNS)
Please refer to the <b><u>full</u></b> guideline for further information hours, absences and returning to placement:	
➤ <i>Supernumerary students Guidelines on Absenteeism and Duty, Supernumerary Nursing Students BSc Nursing Children’s and General -Nov. 2020</i>	➤ <i>CHI Crumlin Guideline on Duty Public Holiday Absenteeism for Rostered Stds 2021</i>

## **Hours of Work (PRCNS Students)**

Your placement length will be a minimum of 4 weeks. As you are counted as part of the nursing compliment in the ED your duty may not follow a fixed pattern. The shifts are from 07:30 – 20.00Hrs or 19.30-20.00Hrs. Late shift in ED is from 10.30 – 23.00. Your duty roster is available at the workstation in the duty folder in the student section, or from the CNEF. It should be noted that all duty is ultimately at the discretion of CNM2/3. Your Roster is completed by the ED CNEF and usually you work the same shifts as a PRCNS colleague. If you require a swap, we ask that you discuss with a PRCNS colleague opposite you to swap and inform CNEF of this change.

Weekend duty cannot be split; therefore, you will be rostered for the same shift on Saturday & Sundays. A maximum of 4 requests can be made for a 4 week placement.

### Students Meal Breaks:

You should have a 30-minute coffee break in the morning, a 45-minute lunch break in the afternoon, and a 30-minute evening break. It is your responsibility to ensure you take breaks when due. We would ask that undergraduate nursing students have breaks together in the hospital canteen. As PRCNS students are part of the rostered numbers, we ask that you remain in ED for breaks to return from breaks early if clinically needed.

### Feedback

Regular feedback is very important to your learning and development. Practice attentive listening by paraphrasing what you hear to check your understanding and perception. Be sure to ask lots of questions. Where you feel it may not be appropriate to ask a question (in front of a patient, for example) make a mental note of your query and raise it later. You should seek feedback from your preceptor at the end of each shift, for example, by asking “What have I done well today?” and “What can I improve on?”

Likewise, your feedback, comments and suggestions will help ensure we continue to provide a welcoming and conducive learning environment for all students on placement in the ED. You will be emailed a survey monkey link by the CPC team so that you can complete an anonymous evaluation of your ED placement

In 2021, ED was awarded the most supportive department award, as nominated by nursing students and we endeavor to uphold a positive learning environment.

**The following are additional aspects of the ED which the student should tick as they observed and / or participate in.**

<b>Professional Practice</b>	<b>Observed (BSc and PRCNS)</b>	<b>Participated (BSc)</b>	<b>Participated (PRCNS)</b>
Introduction to staff members	<input type="checkbox"/>		<input type="checkbox"/>
Management structures within the department	<input type="checkbox"/>		<input type="checkbox"/>
Student role/responsibilities: (ABA Guidelines- scope of practice, recording clinical practice, medication management, code of conduct)	<input type="checkbox"/>		<input type="checkbox"/>
Work routine (critical areas, smart board etc.)	<input type="checkbox"/>		<input type="checkbox"/>

Safety checks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Off duty	<input type="checkbox"/>		<input type="checkbox"/>
Hand Washing & infection Control Policy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Places to note relevant to work area (i.e. Major Emergency Store Room, Laboratory etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Emergency Department Orientation</b>	<b>Observed (BSc and PRCNS)</b>	<b>Participated (BSc)</b>	<b>Participated (PRCNS)</b>
Layout of department	<input type="checkbox"/>		
<i>Familiarisation of equipment:</i>			
Cardiac monitors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Defibrillator monitor	<input type="checkbox"/>		
O2 Saturation monitors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ECG machine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blood / fluid warmer	<input type="checkbox"/>		
Warming blanket	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Resuscitation trolley	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment in Resuscitation Room	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment in Triage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment in cubicles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chute system	<input type="checkbox"/>	<input type="checkbox"/>	
Urinalysis machine	<input type="checkbox"/>	<input type="checkbox"/>	
Triage system	<input type="checkbox"/>		
Resuscitation Room procedures	<input type="checkbox"/>		
Procedure after death has occurred	<input type="checkbox"/>		
Child protection guidelines	<input type="checkbox"/>		
Poisons information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Incidents procedures: patients, parents, staff	<input type="checkbox"/>		<input type="checkbox"/>
Awareness of role as health educator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Discharge advice and Information Sheets/Cards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Preparation of ED area/surrounding environment (e.g. stocking cubicles etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Allocations (Triage, Minors and Majors)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Interpersonal Skills</b>	<b>Observed (BSc and PRCNS)</b>	<b>Participated (BSc)</b>	<b>Participated (PRCNS)</b>
Use of IT systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use of telephones	<input type="checkbox"/>		<input type="checkbox"/>
Use of paging system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use of paging systems including Emergency Response Team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Security Bleeps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ambulance radio link	<input type="checkbox"/>		
Observe handover from ambulance crews	<input type="checkbox"/>		
Participate in handover of patients to ward	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Record keeping/ documentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Demonstrate an understanding of the needs of patients and their relatives	□	□	□
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**It must be noted that students cannot take lab results over the phone in ED and all weights must be checked with an ED staff nurse. Ambulance handovers can only be received by a triaging nurse.**

While you are on clinical placement you will be ‘buddied’ with your preceptor/co-preceptor/a registered nurse. If you have any information to feedback regarding your patient, please report it initially to your ‘buddy’ nurse, if they are not available report it to the shift leader/nurse in charge. Always handover your patient information before going on break or home to your ‘buddy’ nurse. PRCNS students will engage with vital signs monitoring and receive a symphony password to document notes on patient care during their time in ED – a note must be written by a staff nurse after all of your entries noting that entries made by PRCNS have been read. Due to the short time undergrads are in ED, BSc Nursing students will not receive symphony access. Undergrads can be involved with vital sign monitoring as these remain on paper.

The staff of the ED hope you enjoy your placement and will endeavor to ensure it is a positive learning experience.

Student Signature: .....

Preceptor/CNF Signature: .....





# Emergency Department Learning Pack for Nursing Students

**We recommend completion of this pack during your placement to maximise your learning**  
**Take time on quiet shifts to complete same – refer to guidelines and algorithms to assist your learning**

Bachelor of Science (Nursing) Children's & General Integrated

Higher Diploma in Nursing Studies (Children's Nursing)

Student Name:

Length of Placement:

1. 'Children experience a wide array of acute illnesses, many of them unique to the vulnerable anatomy, immature immunology and physiology of youth'. Consider this and list two acute illnesses that may result in a child attending the ED:

a.

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b.

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2. What kind of injuries do you think can occur from the 'normal exploratory behaviour of youth'? Consider the different age groups below and give some examples of injuries you've seen on your placement here:

Infant	Toddler	School-age	Teenager

3. During emergencies it is sometimes necessary to estimate certain values and drug doses. Complete the following table found in the resus room:

	Meaning
<b>W</b>	
<b>E</b>	Energy (Joules)
<b>T</b>	
<b>F</b>	
<b>L</b>	Lorazepam
<b>A</b>	
<b>A</b>	Amiodarone
<b>G</b>	

4. Use of the structured ABCDE approach for a medical patient helps to ensure that potentially life-threatening problems are identified and dealt with in order of priority. What do these letters stand for? (This is found in your welcome pack and on the wall in resus)

A \_\_\_\_\_

B \_\_\_\_\_

C \_\_\_\_\_

D \_\_\_\_\_

E \_\_\_\_\_

5. Use of the structured CACBCDE approach for a trauma patient helps to ensure that potentially life-threatening injuries are identified and dealt with in order of priority. What do these letters stand for? (This can be found on the education board)

C  
\_\_\_\_\_

A  
\_\_\_\_\_

C  
\_\_\_\_\_

B  
\_\_\_\_\_

C  
\_\_\_\_\_

D  
\_\_\_\_\_

E  
\_\_\_\_\_

6. Respiratory failure can result from acute or chronic breathing inadequacy/issues, like foreign body inhalation and cystic fibrosis. Think of an example of one acute and one chronic cause of respiratory failure:

Acute  
\_\_\_\_\_

7. In children, recognition of respiratory failure is based on full assessment of respiratory effort and efficacy, and the effects of respiratory inadequacy on other body organs. Identify some signs / symptoms you might observe under each heading:

Effort of breathing	Efficacy of breathing	Effects of breathing

8. Complete the table by naming a cause for each of the following types of shock listed below:

Hypovolaemic	
Distributive	Anaphylaxis
Cardiogenic	
Obstructive	Tension Pneumothorax
Dissociative	Profound Anaemia

9. List some signs and symptoms of shock in children:

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10. What type of fluid do we administer when giving a child 'a bolus of IV fluid' and how much per kg of weight would we give to a child who is shocked?

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11. What type of fluid do we administer when giving a child 'maintenance fluid'?

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12. A rapid assessment of the child's conscious level can be determined by the AVPU score. What do these letters stand for?

A \_\_\_\_\_

V \_\_\_\_\_

P \_\_\_\_\_

U \_\_\_\_\_

13. Identify the normal respiratory and heart rate ranges used in the ED using vital signs reference grids in your pack and also located around the ED:

Age	Respiratory rate	Heart rate
0 – 3 months		
3 – 6 months		
6 – 12 months		
1 – 3 years		
3 – 6 years		
6 – 10 years		

14. Refer to the CHI at Crumlin anaphylaxis algorithm in resus or on the intranet and complete the table below by entering details of x3 drugs used in the treatment of anaphylaxis:

	Drug	Route	Dose
a.			
b.			
c.			

15. Refer to the CHI at Crumlin acute asthma algorithm and list three drugs (including route and dose) used in the management of asthma:

	Drug	Route	Dose
a.			
b.			
c.			

16. Refer to the CHI status epilepticus algorithm and list three drugs (including route and dose) used in the management of a prolonged seizure:

	Drug	Route	Dose
a.			
b.			
c.			

17. Complete the table below by referring to the DKA guidelines and entering the values below as they are seen when a diagnosis of DKA is made (Diabetic ketoacidosis):

PH	
Ketones	
BSL	>11mmol/L

18. List details of three analgesic medicines (pain relieving) used in the ED:

	Drug	Route	Dose	Frequency
a.				
b.				
c.				

19. Identify two methods/ pieces of equipment that can be used to warm a hypothermic child in resus:

a.

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b.

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20. Complete the following table in relation to burns by referring to the burns guideline on the intranet:

DEPTH	COLOUR / APPEARANCE	CRT	SENSATION TO TOUCH
<i>SUPERFICIAL</i>			VERY PAINFUL
<i>PARTIAL THICKNESS</i>	DARK PINK - +/- BLISTERS	SLUGGISH	
<i>FULL THICKNESS</i>	WHITE/CHARRED/LEATHERY	LOSS OF CAPILLARY BLUSH PHENOMENON	

21. What tool can be used to help estimate the percentage of body surface area involved in a thermal injury? (This is in the burn guideline, the drawers in the ED workstation and your minor injuries talk)

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22. Discuss the discharge advice provided to parents / children on discharge from the ED following a head injury – see the head injury advice card:

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23. List three antibiotics used in the treatment of meningococcal disease in the neonate 'triple antibiotics' – find this answer in the medication prep room on the flip charts:

	Drug
a.	
b.	
c.	

19. Identify two shockable cardiac arrest rhythms and two non-shockable cardiac arrest rhythms – check the algorithms in the resus room:

Shockable cardiac arrest rhythms	Non-shockable cardiac arrest rhythms

20. Complete the following table in relation to ICTS triage (this is covered in the minors area talk with your CNF and Irish Children’s Triage System which can be read online):

Category	Colour	Name	Maximum time to see doctor (minutes)
1		Immediate	
2			
3	Yellow		
4			
5			240 minutes

## Medication and Fluid Calculations (Revision)

The dosages of many medications administered in the ED are calculated based on the weight of the patient. The formula used is:

$$\frac{\text{what you want (mg)}}{\text{what it's in (mL)}} \times \text{what you have (mg)}$$

Prior to performing this calculation, it is important to check that the correct dose has been prescribed by referring to the CHI Hospital Formulary or BNF.

For example, an 11-year old patient weighing 40 kg is prescribed 600 mg paracetamol (PO). We would first check the Hospital Formulary entry for paracetamol and we see that the oral dose for an 11-year old is 15 mg / kg. The prescribed amount of 600 mg is therefore correct (40 kg x 15 mg / kg = 600 mg). We next select the most appropriate product, in this case paracetamol suspension (250 mg / 5 mL).

Using the formula above:

$$\frac{600 \text{ mg}}{250 \text{ mg}} \times 5 \text{ mL} = 12$$

i.e. the patient should receive 12 mL of paracetamol suspension (250 mg / 5 mL).



Similarly, IV maintenance fluid requirements are also calculated based on the weight of the patient. For 100% maintenance fluid requirements:

<b>0 – 10 kg</b>	100 mL / kg
<b>11 – 20 kg</b>	50 mL / kg
<b>21 kg +</b>	20 mL / kg

For example, the same patient used in the example above is prescribed 0.9% saline & 5% dextrose (IV maintenance fluid) to run at a rate of 79.2 mL / hour. It is the responsibility of both the nurse who checks the fluids and the nurse who hangs the fluids to ensure that the correct volume and solution is administered at the correct rate. To check if the prescription is correct, we need to calculate the IV maintenance requirements for our patient:

For the first 10 kg of the patient's weight we give 100 mL / kg, i.e.  $10 \text{ kg} \times 100 \text{ mL / kg}$   
= 1000 mL

For the next 10 kg of the patient's weight we give 50 mL / kg, i.e.  $10 \text{ kg} \times 50 \text{ mL / kg}$   
= 500 mL

For every 1 kg of the patient's weight after this we give 20 mL / kg, i.e.  $20 \text{ kg} \times 20 \text{ mL / kg}$   
= 400 mL

Adding the 3 values (1000 mL + 500 mL + 400 mL) gives us the total 100% maintenance fluid requirement for our patient in a 24-hour period (1900 mL). To calculate the hourly infusion rate, we simply divide this figure by 24 (24hrs in a day), i.e.  $1900 \text{ mL} / 24 \text{ hours} = 79.166 \text{ mL / hour}$ . Rounding this to one decimal point confirms the accuracy of the prescription.

***If you would like some additional education on medication or fluid calculations, please ask the CNF.***